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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 29268.5-2022

**Information technology - Biometric performance testing and
reporting - Part 5: Access control scenario and grading scheme**

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foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules for Standardization Documents" drafting.

This document is part 5 of GB/T 29268 "Information Technology Biometric Recognition Performance Test and Report". GB/T 29268 has

The following parts have been published.

- Part 1. Principles and framework;
- Part 2. Test methods for technology and scenario evaluation;
- Part 3. Mode specificity test;
- Part 4. Interoperability performance testing;
- Part 5. Access control scenarios and classification mechanisms;
- Part 6. Test methods for operational evaluation.

This document is equivalent to ISO /IEC 19795-5:2011 "Information Technology Biometric Performance Testing and Reporting Part 5.

Access Control Scenarios and Grading Mechanisms".

Compared with ISO /IEC 19795-5:2011, this document has made the following allowable structural adjustments.

- Chapter 2 corresponds to Chapter 3 in ISO /IEC 19794-5:2011;

--- Chapter 3 corresponds to Chapter 4 in ISO /IEC 19794-5:2011;

--- Chapter 4 corresponds to Chapter 2 in ISO /IEC 19794-5:2011.

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

GB/T 29268 "Information Technology Biometric Recognition Performance Test and Report" is proposed to be composed of seven parts.

--- Part 1.Principles and framework. The purpose is to specify common principles and frameworks for performance testing and reporting of biometric systems.

--- Part 2.Test methods for technology and scenario evaluation. The purpose is to specify the techniques and scenarios in biometric performance testing evaluation method.

--- Part 3.Modal specificity test. The purpose is to specify performance measures for specific differences between modalities in biometric systems.

try method.

--- Part 4.Interoperability performance testing. The purpose is to specify interoperability tests associated with biometric formats method.

--- Part 5.Access control scenarios and classification mechanisms. The purpose is to specify access control fields in common biometric identification systems

The quantitative expression of the test method of the scene and the classification mechanism of the performance level.

--- Part 6.Test methods for operational evaluation. The purpose is to specify the principles and operation of operating tests in biometric identification systems.

System performance indicators.

--- Part 7.On-card biometric comparison algorithm test. The purpose is to specify the testing of the on-card biometric comparison algorithm.

try method.

Biometric performance testing covers three types. technical testing, scenario testing, and operational testing. Technical tests refer to biometric-based

The performance test of the biometric identification system of the sample database; the scene test refers to the establishment of test objects according to the distribution of test

personnel, and the simulation

Test in real application scenarios, considering the failure of obtaining biometric samples and registration failures in registration or identification transactions.

Elements, such as access control scenarios; running tests means that actual users form test objects to test in actual application scenarios. Generally come

Say, the correct labeled data is unknown to the tester.

GB/T 29268 regulates the biometric performance test and report from the above three test types respectively, and stipulates the principle

Rules and frameworks, modality-specific testing, and on-card algorithm evaluation. This document only deals with biometric identification systems and devices used in access control applications.

"Technical Performance Test" related to the scientific nature of equipment, the purpose is to determine the error rate and access transaction time of the system and equipment, obtain and predict biological

The error rate and access transaction time of the feature recognition system in practical application. The error rate includes the false acceptance rate and the false rejection rate, and also

Both registration failure rates and feature acquisition failure rates for the entire test set are included. These tests are generally applicable to

access control system.

Information Technology Biometric Performance Testing and Reporting

Part 5. Access Control Scenarios and Grading Mechanisms

1 Scope

This document.

--- Defines a general biometric access control scenario, which is suitable for scenario evaluation of biometric authentication systems;

--- Provides a quantitative expression of the classification mechanism for the requirements and performance levels of the biometric identification system;

--- Provide a general basis for scenario evaluation, applicable to specific test methods and achievable performance of specific biometric identification systems

grade.

This document is suitable for performance testing of biometric identification systems, and

does not involve detailed comparison algorithms or biometrics of potential users.

distribution of signs.

The minimum false acceptance rate for this document is 0.1%. If further reduction of the false acceptance rate is required, custom tests (not within the scope of this document) range) may be appropriate, the test should fully comply with the provisions of GB/T 29268.2.

This document deals with testing of biometric systems for physical access control as well as testing of device suitability for logical access on a case-by-case basis.

Errors and throughput measurements caused by users deliberately avoiding being correctly identified by the biometric system are outside the scope of this document

(e.g. active impostors). In addition, this document does not cover the following.

- Reliability, availability and maintainability;
- Security and confidentiality, including loopholes;
- Human factors, including user acceptability;
- environmental factor;
- Personal safety;
- Cost-effectiveness;
- Compliance with privacy regulations.

The assessment of these aspects is the responsibility of the relevant departments.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references

For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document.

GB/T 29268.1-2012 Information Technology Biometric Recognition Performance Testing and Reporting Part 1.Principles and Framework

(ISO /IEC 19795-1.2006, IDT)

GB/T 29268.2-2012 Information Technology Biometric Recognition Performance Test and Report Part 2.Technology and Scenario Evaluation